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Means of educating culturally disadvantaged children were examined. The research, experimentation, and adaptation were guided by six basic propositions. They were: that abilities and skills were socially determined; that there was a wide and deep socio-economic and cultural gap between the "advantaged" and the "disadvantaged" child; that it was possible to use strategic approaches in the absence of an inclusive theory; that preschool years were the most important for nourishing intellectual ability and assuring scholastic success; that ability arrested or impoverished at an early stage of development can make later gains; and that in a changing and heterogeneous society educational programs should be determined by the results of research and experimentation.

The approaches consisted of five steps. The first step was diagnosis and evaluation. The second step was the development and implementation of new policies. The third step was to visit the homes of the selected children in order to interview, to observe, and to find clues in family-background variables and child-rearing practices which might explain the differences of performance among the children. The fourth step was to design an experimental teaching program to be carried out in kindergarten. The fifth step was a return to the repertoire of the first.

Results showed that the IQ of culturally disadvantaged children can be raised and maintained at that level. Preschool programs assure more change than later endeavors.

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BASES FOR INTELLECTUAL ADVANCEMENT OF CULTURALLY DISADVANTAGED CHILDREN

M. Smilansky and S. Smilansky

A revision of a paper presented at the 7th annual research roundup of children and youth at the University of California, Los Angeles, July 1965

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BASES FOR INTELLECTUAL ADVANCEMENT OF CULTURALLY DISADVANTAGED CHILDREN

I. INTRODUCTION AND THEORETICAL PROPOSITIONS

The points of departure and the processes through which it is possible and preferred to lay foundations for intellectual advancement depend upon the status of the groups considered, as well as upon the values and professional skills of the "social-engineers' and their parent organizations. They are further influenced by the perception, value-orientation, structure and functioning of the particular social system where the planned change is expected to take place. Insofar as the possible avenues for intellectual advancement are influenced by a configuration of varied forces in a certain social milieu, we shall present experiences in Israel as a case study.

Three major factors are necessary for our understanding of the Israeli sociological scene. (See M. Smilansky, "Sociological Background" in M. Smilansky et.al., Child Welfare in Israel, Szold Institute, Jerusalem) They are:

a) The numerical growth of the population. On Independence Day, 1948 the Jewish population totaled 650,000. The number reached 2,500,000 in 1965.

b) <u>The turnover in ethnic and cultural composition.</u> 78% of the Jewish population in 1947 came from European derived families, which were primarily small in size and middle-class in values. Today only 52% of the population is of European origin. This turnover developed as a result of the fast immigration from middle-eastern countries. These groups came from families which were primarily large, functionally illiterate, and unequipped for life in technologically-oriented society.

c) A process of rapid change is taking place due, primarily, to the transfer from what was once a pioneering, voluntary, ideological, social movement into a middle-class, urban, bureaucractized, techno-logically-oriented Welfare State.

The implications these changes have for education are that a system based in its orientation, expectations, structure, curriculum and methods, on a European tradition either has to be reorientated through basic and immediate modifications or the majority of its potential students (20% of the newly born in Israel during the last year were Arabs, and 2 out of 3 infant Jews were of Middle-Eastern derivation) are to be condemned as culturally disadvantaged or deprived. This situation fundamentally questions the present educational values, role-expectations, structures, and media.

Our research, experimentation, and adaptation for intellectual advancement of the culturally disadvantaged child were guided by 6 basic propositions. We shall now enumerate them. (For a detailed description see).

a) Abilities and skills are, to a great extent, socially determined. Notwithstanding genetic potentialities, their appearance and development depend upon recognition and exercise:

The opportunities which will determine these abilities are themselves defined by cultural patterns, national policy, social climate, and by structure and activity of the educational network. The commonly held notion of a "limited pool of ability" results from a static view of society and its educational system. A dynamic view, on the other hand, suggests that abilities are susceptible to broad modifications.

b) The socio-economic and cultural "gap" between the "advantaged" and the "disadvantaged" is wider and deeper than a policy of "formal equality" can handle:

Significant progress in "bridging the gap" can be achieved only through a national policy of preferential treatment that would compensate the "disadvantaged" for their fundamental weaknesses and differences. In an absolute sense, there has been definite improvement in the condition of disadvantaged children in Israel, the U.S., and in most other "developed" countries.

However, of utmost importance are the relative differences between the strata of a given society now and at a previous time. The disadvantaged groups have improved unquestionably, but because of the law "to him who has even more shall be given" the "advantaged" groups have improved even more. The demands of state and scoiety have been raised and with the development of communication and "general democratization", the lagging groups have raised their levels of aspiration. Thus the feeling of inequality is accentuated. Only a policy aimed at drastic ramification can affect the crucial nature of the problem.

c) It is possible to use strategic approaches in the absence of an inclusive theory:

The possibility of using strategic approaches in the absence of an inclusive theory

It is most important to lay a foundation for an encompassing theoretical framework that will clarify the interaction processes by which cultural patterns, social organization, personality development, and learning processes are related. Nevertheless, in view of the present stage of development of the behavioral sciences and in the presence of pressures for immediate action and change, we are not able to wait for the end product of theoretical explication. But it is possible for use to exert influence on the problems of underprivileged children in the educational system by making assumptions and propositions, and empirically checking them through pedagogical

and psychological experimental tests. This can be achieved by taking advantage of opportunities for partial advancement, formulating clear definitions of objectives, creating a matrix of alternative experimental combinations, and simultaneously interweaving an ongoing evaluation program.

Such an approach makes education an experimental proposition, based on utilizing advances in the sciences. It allows education to serve as an unlimited testing ground for the improvement of the potentialities of man and society.

d) Pre-school years are the most important for nourishing intellectual ability and assuring scholastic success:

Our work, since 1957, has been based on the proposition that the pre-school period is no less a formative time in the intellectual sphere than it is in the physical, mental, and social fields. Because the emphasis on intellectual performance in our society is so overwhelming, however, it virtually determines one's sense of security, his mental health, and his social participation.

We have detailed 11 crucial reasons why intellectual advancement programs in pre-school years are possible, most promising, and necessary. (See). For the present forum it will serve to briefly cite these

reasons in order to more clearly show what considerations guided us in our search for meaningful and appropriate advancement programs.

1) As demonstrated by many studies clearly analyzed and presented by Blum and Hunt, it is during the pre-school years that most rapid change and growth occur.

2) Pre-school is a period of "crisis" when the child moves from the shelter of the family system toward experience, familiarity, proficiency, and identification with new and encompassing social systems. His perceptions, sense of security, pattern of autonomous development, and the basic elements of abstract thinking and intellectual performance will depend, to a great extent, on acquisitions and internalizations during this stage.

3) the "gap" between the "advantaged" and "disadvantaged" at this point, is relatively limited. The more we can shorten the period of dissonance between what the family system has inculcated and what the ruling social system aspires to, it is easier to create equilibrium and succeed in re-education.

4) The child is relatively confident and predisposed to new experiences for he has, hitherto, experienced little or no failure. Because the home in which he was reared had a loose management, insofar as cleanliness and the acquisition of particular skills, it

made relatively few demands upon him. The child, therefore, did not have the experience of being tried or judged, nor did he undergo many experiences of failure. He is, then, ready to enter into a proposition which can reward him with success.

5) The parents are ready and relatively able to support the intellectual development of their child. On the one hand, the pre-school child identifies with his parents and is unequivocally ready to accept their propositions. On the other hand, the parents see themselves, at this stage, as sources of wisdom and promoters of knowledge, while, at a later date they are no longer technically or emotionally equipped to work with the educational authorities in the scholastic area. Insofar as the requirements for their child's growth are neither impossible achievements for the parents, nor of little significance to them, and provided that they receive the proper guidance and reinforcement, the parents can take an active part in fostering their pre-school child's intellectual development.

6) Education is a cumulative process. If the proper foundations for the development of primary mental abilities, amassment of information, and habit-formation are laid early in life, a natural process of maturation for developmental tasks is developed.

7) Instead of allowing the development of what Bernstein called "restrictive code" language style, and then trying to re-educate toward the expected cognitive style in school, intervention should take place at the ages 2-3 in order to promote, from the start, the desired language pattern.

8) In an immigrant, heterogeneous society there are limited facilities for learning the proper norms through imitation. Because the school, as a social system, is a structured organization expecting normal attitudes and behavior the pre-school years can provide an invaluable opportunity to begin a gradual process of integration which will lead to successful intellectual performance.

9) Social prejudice prevents acceptance and integration. Our observations confirm that, in most cases, pre-schoolers are immune from this contagious "disease". Since no definite norms for intellectual performance are established at this age, the "advantaged" do not realize their superiority while the "disadvantaged" do not experience their inferiority. At this stage, then, acceptance and integration can be the result of a natural process of education, while later we are forced to concentrate on re-education.

10) As has been stated in a previous generalization, emotional security and intellectual performance are interacting circular forces which can reinforce or weaken one another. It we raise the I.Q. of the pre-school child and prepare him in other areas of expected behavior, as well, he will find his place in school, will be considered by his teachers and peers as "capable" and "equal", and his curriculum will not have to be watered down to "life adjustment education". This type of exposure will develop him intellectually and his own successful performance will serve as a reward and a reinforcement.

11) Entrance to school requires adjustment on the part of any child. If the "gap" among entrants is relatively limited, if the teaching process is gradual, and the period for habit formation is prolonged, the disadvantaged can learn through imitation in addition to formal instruction. If however, the "advantaged" know so much and the "disadvantaged" so little, the common ground necessary for imitation is not available. From our observations we can assert that the "disadvantaged" are motivated and capable of imitation only when they feel "up to par". This feeling can be imparted solely through previous guidance and instructions.

e) Against the Premise of "Irreversibility"

The premise of "irreversibility" as expressed by Bowlby, Hebb, Hunt, Bettleheim, holds that ability arrested or impoverished at an early stage of development cannot make later gains. Although we indicated the necessity to begin intellectual advancement as early as possible, we, hevertheless, believe that efforts with older age groups (especially adolescents) can be fruitful. The question at hand is, "in what respects and at what cost can man change at different ages". Natural growth processes follow an upward spiral development (see), interspersed with points of "crisis". In our culture the pre-school age, adolescence, and the army-college period constitute such periods of crisis. We can profitably utilize these periods for educational reorientation programs by focusing on the point where an individual or a group seems "out of step", deepening his awareness of the dangers and potentialities of his growth, and guiding him toward goals considered meaningful and necessary by our system of values.

As detailed elsewhere (see) we have based the evidence for potential "reversibility" upon accumulated data from the 6 areas of experience that follows:

(1) Growth patterns of kibbutz youth
(2) Adjustments of immigrant youth
(3) Adjustment of juvenile delinquents
(4) Progress of mentally retarded-wayward adolescents in a rehabilitation program.
(5) Improvement of psychotherapeautic patients.
(6) Success of army training programs.

The propositions for intellectual promotion at a later age were as follows:

(1) An emotional crisis can serve as a positive tool in inspiring a process of change. It is, therefore advisable to seize upon it and utilize it as a means of pedagogical therapy for intellectual promotion.

(2) Adolescence, like early childhood, is an age especially suited for reorientation. It is often a period of crisis whose exploitation and directed formentation can guarantee chances for significant change.

(3) Special promotion of successful students in culturally disadvantaged schools is the best potential opportunity to break the "vicious circle of impoverishment" which limits their intellectual chance.

(4) Transference of potentially gifted students from the culturally disadvantaged areas to high-schools of the "European" derived middle-class will guarantee a substantial change for social integration, provided it be done in a proper fashion.

(5) The foundation for identification and the beginning of promotion must be broad, therefore enrichment programs for the "upper third" in the culturally disadvantaged schools should be started during the last three years of elementary school. Directed selection should follow only at the high school level.

(6) Models that integrate motivational powers with persistence to achieve are needed in order to guarantee successful promotion.

(7) The parents are called as partners to the program.

(8) Experimentation with varied types of promotional frameworks and programs will guarantee a better chance for adjustment and progress.

f) In a changing, heterogeneous society, educational programs should be determined by the results of research and experimentation.

A psycho-social approach instead of a psycho-genetic one

Those who hold prominent positions in the dominant culture of a given society, at a given time, tend to have a static view of the nature of society and a predominantly psycho-genetic view of the potentialities of individuals. The educational system and the psychological service are given the role of "gate-keepers,"

concerned with preserving the dominant culture through the transmission of tradition exclusively to those whose present status appears to meet the criteria of the Establishment. These objectives are achieved through the use of "eleven-plus" examinations, school zoning, matriculation tests, and IO tests which are presumed to be measures of inherent, biologically determined, psycho-genetic elements of ability.

In the light of (a) the need of a democractic society for a functioning equality among the people, (b) the need of a technologically developing economy for a speedy expansion of "the pool of ability," and (c) the evidence from research and experience in different countries that not only cultures and societies are in process of evolution and change, but that man's potentialities can be promoted, the task of the educational system and the psychological service should be altered.

Instead of serving as "gate-keepers," these agencies should

(a) try to identify, diagnostically, those social and cultural determinants that set constraints on the appearance and activation of human potentialities, and

(b) conduct a systematic search, experimentally, for ways to deal with, and promote, their emergence and growth.

Tests, examinations, and other selective devices, oriented to the psycho-social development of individuals and society should serve these purposes. A different statement of objectives, structure, and mode of operation should result.

The educational system and the psychological service should view themselves as responsible change agents, seeking the actualization of human potential and guided by professional knowledge which is derived from an active research and development program. (see).

II. DESIGNS FOR RESEARCH AND EXPERIMENT AND THEIR APPLICATION TO THE SCHOOL SYSTEM

To allow for a view of the process as a whole before moving into a detailed presentation of its parts, the following chart is presented. One should realize that any schematic picture of a dynamic process, such as the development and changed in human performance, is merely a simplified abstraction. It should also be noted that although we speak, in this general outline, of stages gradually developing toward specific objectives, many diversions have, of necessity, taken place during the actual process. Furthermore, we would like to point out that the following are only sample programs brought to illustrate specific points. A complete listing is available in the annual reports of the Ministry of Education and the Szold Institute.

As can be seen from the chart, the first step in our approach was diagnosis and evaluation. This took three directions:

a) A diagnosis of the cultural background of the population and its adaptation to the ruling culture:

Socio-anthropological investigations of the cultural patterns of selected ethnic groups (see took place to determine what concepts they brought from their countries of origin, how the tempo and mode of their acculturation in the Israeli social systems is progressing, what are their present child-rearing practices, and how these value-oriented perceptions and activities meet the expectations of the social system, the school.

b) A diagnosis of the social climate in selected communities:

Sociological studies in certain urban neighborhoods and rural communities of variegated population composition (see) took place to understand the ground on which the educational systems operate, to discover the perceptions and expectations of the participants in the field, and to evaluate the possibility of applying certain principles of community development and social organization to the present situation.

c) Diagnostic studies of schooling in various institutions, subjects, grades, and age-groups.

A series of socio-psychological and pedagogical studies took place in all the grades of elementary school (see) and continued into secondary schools (see) while a parallel series of studies covered the pre-school and infancy periods. These studies aimed to determine the schools' demands, the present standing of "disadvantaged" children, and the possible avenues of adaptation and change in approaches, curriculi, didactics, and teacher-orientation, at every stage.

This work has been culminated in an attempt to integrate the individual pictures into theoritical-ideological proposition (see) and memoranda for experimental trials in different directions (see).

The second step in our program has been characterized by the development and implementation of new policies, and the execution of pedagogical experiments in different sub-units of the school system:

a) Development and implementation of new policies. The speedy and comprehensive attack made by the Ministry of Education has made three important contributions: 1) An initial realization by administrators and teachers that we are dealing with an important and decisive issue, in which they should participate, as well. 2) The mobilization of financial and technical resources that makes large-scale improvements possible, and 3) The gradual development of differentiated frameworks of absorption that allow increased participation for "disadvantaged children" in programs specifically designed to meet their needs. (A report on these activities is available in the Israel government year book, and a condensation will appear in M. Smilansky, Culturally Disadvantaged Children in the School System, 1965/66).

Parallel to the work of the Ministry of Education, the role of the research agency was to prepare new patterns of work and media and to thest their potential influence in classroom situations. They also were to evaluate their application and implications in actual field work, and to propose possible adaptations of both structure and content.

b) Pedagogical experiments in different subunits of the school system: The element shared by all of these experiments was the design of a matrix of alternative approaches, at each stage of development,

and a search, through controlled observations and tests, for the meaning of developing processes. Because the possible alternatives were innumerable, because a theoretical system-analysis has given many possible configuration, and because our budget and trained personnel were limited, a choice of priorities had to be made. The following circumstances determined our choice:

a) The social system, the school, is graded. At each stage specific demands are made based on the assumption of past preparation and knowledge. By studying the norms of expectations for the child, parent, and teacher at cruical points of the educational ladder, it has been possible to crystallize a preventive and promotive program to assure emotional security, intellectual proneness, and social acceptability in the stage preceeding testing. (For an illustration see the description of curriculi and didactics developed in pre-school experiments in preparation for the first grade, or the program of enrichment in the upper-elementary grades in preparation for academic high school)

b) Skills are developed gradually and cumulatively. In addition to this, the educational system gives more value and reward to specific skills and attitudes at certain stages than at others. By designing proper intervention and rehabilitation programs to assure progress and adaptation to central expectations, we could

open channels for emotional and social acceptability and readiness for reorientation on more secure grounds. (For an illustration see the description of programs for language development in the lower grades; arithmetic in middle grades; and in adolescence the enrichment program.)

c) In a democratic social system both effort and mobility are primarily based on the existence of proper motivation. The assumption was that, in addition to reinforcement and reward, there is a need to provide in the process proper identification models; that can serve, both, as a force to attract the "disadvantaged" as well as a proof to substantiate the promise of a "psychological future". A most encouraging and stabilizing identification model for the disadvantaged youth, who in a changing society cannot follow his parents or traditional leaders, is the college bound adolescent from the same ethnic group and ecological community. (For an illustration see the Boarding School program).

d) The ability to give pupils meaningful and fruitful support at each stage depends upon proper diagnosis. If the teacher is unable to assess the situation or to understand and spot deficiencies in the students pattern of progress, there is a very limited chance that he can support him in any meaningful way. For teacher and student alike, then, diagnosis and evaluation had to take place at every step of any particular topic in order to make each of them aware of the

success and failures thus far encountered, and the goals lying ahead. (For an illustration see workbooks, textbooks and teacher handbooks in language-arts, arithmetic and elementary science, and general diagnostic tests for the different grades of the elementary school).

The effort was separated into two parallel approaches. The basis of the first approach was to accept, for the time being, the school systems, as they are, but to continue investigations and research to find the avenues that will enable the child to successfully perform his role, and notivate him to continue his efforts in the future.

The second approach was based on the assumption that the curriculum and methodology of teaching, as related to the "disadvantaged", are inadequate. Alternatives to the present activities were proposed and other approaches to teaching the same skills were tried.

As an illsutration of the first approach we shall summarize the design of one pre-school experiment whose objectives were to promote cognitive abilities, impart basic information, vocabulary, and concepts, and to determine what learning experiences were essential for success in the first two years of school. We determined what competencies were necessary to develop in kindergarteners by:

1. Observing 30 first and second grade classrooms to see the educational environment, pupil-teacher interaction; and to learn what was implicitly required of the children.

2. Analyzing text-books used in these grades to learn what were the vocabulary and concepts required for success in reading, arithmetic, and any particular "subject matter".

3. Interviewing expert-judges to determine the vocabulary and concepts needed in these grades.

The distillation of the information gleaned from the foregoing activities produced a selected list of competencies (see details in the report) abilities, attitudes, skills, etc. that formed the basis for the second step in this study i.e., to determine which of these competencies were present in the advantaged children but lacking in the disadvantaged of the same age. Four activities were required:

1. Construction of tests to measure the presence or absence of these competencies in kindergarten children from various backgrounds.

2. Evolving methods of observation, recording, and rating designed to supplement the test in evaluating the presence or absence of the a/m traits.

3. Selection of the children from different backgrounds.

The children selected had to have been born in Israel, to parents who immigrated to Israel 8 to 12 years earlier, and who had normal i.e. not broken or distorted family lives. These children were then divided into five groups:

a. Low European : Children from families numbering 3 to more offsprings, where the parents had received not more than an elementary education, and where the father was in a semi-skilled or unskilled occupation.

b. Low Middle-Eastern: Children from families meeting the same criteria as the preceding group, except that the parents had been born in Asia or Africa.

c. High European: Children from families numbering 2 or more offsprings, where the parents had received a high school education or more, and where the father was a professional.

d. High Middle-Eastern: Children from families meeting the same criteria as the preceding group, except that the parents had been born in Asia or Africa.

e. Kibbutz Middle-Eastern; Children born and raised in a kibbutz from families meeting the same criteria as group "b" or "d".

4. The administration of these tests to the children, and by a comparison of results, to select the competencies and traits to be developed in the experimental group. The traits and competencies present in the majority of the "Low-European" and present in the majority of the "Low Middle-Eastern" group were omitted. Only those items which were present in "Low-European" children and absent or rather requiring development, in the "Low Middle-Eastern" ones were retained.

The repeated juxtaposition between "European" and "Middle-Eastern" children may lead to the erroneous inference that the differences are genetic and therefore insurmountable. Our point of departure is entirely different; the difficulties lie in the fact that the majority of "Middle-Eastern" children have not learned, in their environment, how to carry on certain processes which are fundamental to successful schooling. The "Europeans" mostly do well in school because they have had the opportunity to develop the necessary processes.

The third step of our study was to visit the homes of the selected children, to interview, observe, find clues to family-background variables and child-rearing practices which might explain the differences or performance among them, and give leads to the teaching praetices which may be used in the kindergarten in order to compensate for family influences. (1. See: Child-

Rearing Practices as they affect the I.Q. of Culturally-Disadvantaged Pre-School Children.

2. Child Rearing Practices as they affect the School Success of the Culturally-Disadvantaged First Grade child.)

The fourth step of the study was to design an experimental teaching program, to be carried out in kindergarten with the "Low-Middle-Eastern" group (children from families numbering 3 or more offsprings where the parents had received no more than an elementary education, and where the father was in a semi-skilled or unskilled occupation.), and to construct a supplemental program for work with the parents of half of the children in the experimental group, in an attempt to gain their support for their child's work in kindergarten. (These results were compared with those of the children in the remaining half of the experimental group whose parents were not involved in the supplemental program.) An attempt to cooperate with parents whose education is elementary or less, in a program of intellectual development of their children in kindergarten.

The programs were designed to meet the deficiencies of the "Low M.E." using as our criterion the competencies which the children of the same circumstances from "European" background possessed. Since the majority of the "Low-European" succeed in first and second grades, we reasoned (according to the test results of both groups at the 5 yr. level) that the "Low M.E." children might also succeed

if they had the same competencies.

This strategy was an attempt to experiment with the curriculum as a whole, as well as with its individual parts, by examining the logic and sequence of each competency while, at the same time, noting the interaction between all the different competencies included.

The specific competencies that were designated for experimentation and promotion are:

1. Expanding basic information and knowledge related to units taught in the first grade

2. Promoting habits of work and industriousness

3. Developing and expanding vocabulary (verbal formulation of every day situations, names of objects, phenomena, and their description)

4. Developing and strengthening socio-dramatic play ability

5. Developing the ability to do independent work on instruments and appliances built for this purpose.

6. Developing the courage to participate in unfamiliar activities, and to use new materials

7. Developing the ability to plan and follow through, accordingly

8. Developing the ability to accept criticism as a tool for better learning

9. Developing the ability to use failure in certain new tasks as a basis for further inquiry and learning

10. Strengthening and developing the ability to read pictures

11. Strengthening and developing "concepts" (primary concepts in orientation, arithmetic concepts, etc.)

12. Strengthening and developing reading-readiness and the ability to read

13. Strengthening and expanding perceptual abilities

14. Strengthening and developing auditory abilities

15. Developing the ability to write

The experiment was based on a curriculum which embraced all these competencies and included a systematic evaluation of the whole and the parts, and provided for further evaluation and experimentation at the end of the year and at the end of first and second grade.

The teaching activities were organized not as a series of separate projects for each deficiency, but as an integrated whole program, guided by the teacher's effort to establish a meaningful give-and-take with each child (when working with individuals or with groups). In general, this meant that we guided the teacher to see that each child would learn from his words and acts, would be offered something he could understand, would be free to order his own response, and would have that response recognized by the teacher. The activities as a whole would make the words and acts of one valuable and relevant to those of the others. We tried to support the teachers in this mode of behavior by emphasizing the following:

1. That each child is potentially able to overcome his deficiencies; that a child's failure to respond lies not in his basic ineptitude but in his inability to "catch on to the game" of communication with the teacher. This is due, among the "Low M.E." Children, primarily, to the fact that they were not given the change to learn this "game" from parents in the home. It is not that they cannot learn specific activities required in the school setting, but rather that they have not learned how to enter into the primary engagement with the teacher. Therefore, incapable of grasping the whole, they are further unable to comprehend its instrumental parts. Specific competencies can be developed in these children when they are able to hold a sustained communicating relation with the teacher. Such communication is, therefore, basic to all the rest.

2. In view of this basic condition, care must be taken to "break through" the experience of each child, in order to gain knowledge of his particular competencies and deficiencies, and to form teaching methods aimed to meet them. Each teacher was accordingly, taught to use the test findings of each child and to repeatedly re-test, formally and informally, to discover what, in fact, each child was learning.

3. That individual children differ not only in the specifics they have learned and are learning, but also in the manner in which they learn. What works

with one child will often not work with another. There is, therefore, no one way to reach all children, and it is necessary for the teacher to be highly creative in finding and supplying the way which will work for varied individuals. That creative act is left to the imagination and ingenuity of the teacher. We, as experimentors, can make tentative suggestions for purposes of illustration, but we cannot tell the teachers how to teach.

4. That there is a clear goal to be reached. The competencies which permit children to be successful in the first grade are known. Communication begun early in kindergarten is to grow increasingly broader so that by the end of the year the children will have internalized the competencies they will need for the first grade. The tests used serve not only to keep track of the progress in individuals children throughout the year, but also to define the end which is sought.

5. That, as children differ, so do teachers; as ways of learning vary, so do ways of teaching. Children and teachers, both, have particular backgrounds of experience which enable or prevent them from understanding certain things. As children have to be free to organize their own response, so do the teachers. The requirements and freedoms necessary for the children-in-communication are also necessary for the teachers-in-communication. The experimentors, in their basic approach, then, undertook to deal with the teachers in the same way as the

teachers were expected to deal with the children.

The second approach, the questioning of the validity of present assumptions and didactics in teaching the "disadvantaged", can be illustrated by the "first grade reading experiment." The objectives of this experiment were to search for alternative ways of teaching reading, improving language, and promoting intellectual functioning, and, thereby, laying proper foundations for further progress.

To begin with, a diagnostic survey was carried out to discover the difficulties and limitations of these children. From there we proceeded to ask supervisors in elementary schools to recommend expert teachers, and instructors in teacher-colleges who seemed to possess the seeds of a promising approach for the "disadvantaged children". From the proposals received, a committee of experts selected six participants, each representing a point on a theoretical continuium of didactics for teaching reading. One teacher followed a "traditional" phonetic approach where the first stages of reading are taught distinct from other language teaching. Another followed the "progressive" approach where sentences and words are expected to be grasped through experienced perception, with little phonetic analysis at the first stage. The other four teachers were spread on the continuium with different configurations of combined phonetic and the gestalt approaches. Each of the

participants was provided with a budget and a number of laboratory classes, and attempted, with the help of an advisory committee, to crystallize its thinking and experience into a guided process of learning by the end of the first year.

The following year each experimenter was given fifty regular teachers, selected by a central evaluating team, to be instructed according to the experimenter's approach. The experimenter was not told how the process and the results would be evaluated. At the same time a separate team was organized to select a sample of controlled and experimental groups for each experimentor, to prepare the tests, and conduct the evaluation, without being informed of the theoretical basis for the different apporaches, or the contents of curriculum and materials developed in the process. On the basis of the results reported by this team, the pedagogical board chose 3 proposals for further trial in a field situation. Each of these proposals was tried by about 250 interested teachers, with this large sample of the participating classes, where pupils were matched in home-background variables and where training and experience of the teachers were equal. The participating teachers and their supervisors were asked to evaluate their experiences with the materials used. On the basis of positive test results, observations, and reports, the Ministry of Education was in a position to recommend the use of these 3 alternative propositions

in all schools of a predominantly "disadvantaged" population.

In the third stage of our research we sought additional differentiation. On the one hand, we investigated the effects age, length of continued participation, and varied approaches can have upon promotional activity. At the same time, we moved toward the clarification of problems related to the transferring of laboratory-type experiments to actual field conditions, under the guidance of the Ministry of Education and executed through the superintendants, administrators, and teachers.

To demonstrate the first investigation, we shall once more use the pre-school series of experiments. We developed a 3 dimensional design as follows:

a. Downward movement in age. After completing the experiments with the 5 yr. olds, similar trials were designed and carried out with 4 and 3 yr. olds, in order to clarify how curriculum didactics and expectations should differ from those in a one year promotion program. Next year we shall work with the 2 yr. olds, and our major effort will be directed at guiding the parents to advance their child.

b. A longtitudinal approach. After the cross-sectional trials, we were able to test the meaning of cumulative promotion. The experimental design made it possible to test different configurations:

1. Testing 2, 3, or 4 yr. olds
2. Working solely with the children
3. Working with children and parents, combined
4. Testing only until entrance to school
5. Testing through the second grade

c. Testing specific theoretical propositions.

In addition to the general questions of raising I.Q., developing certain skills, and assuring better preparation for school, we took questions which appeared in the course of our observations and which were incorporated into the design of the sub-experiments, that aimed to test alternative replies. (For an illustration see the experiment on the development of socio-dramatic play (see) or the experiments on "optimum learning conditions" (see) where theoretical propositions on the psychology of learning were tested. For example, teaching of law vs. self-discovery; final goal presentation vs. task sets; "extrinsic" vs. "intrinsic" motivation, anxiety-arousal vs. saturation; planned activity vs. freedom of exploration, etc.

To summarize this point, we may say that an experimental network has been developed to test the effect of differential input by different agents at different stages of development, upon the culturally "disadvantaged" by measuring their immediate as well as later performance in school.

In answering the questions related to the transference of laboratory experiments to the field situation, it was necessary to design activity that would assure fair-trial by the teachers, adaptation to differential needs (not all "disadvantaged" have the same readiness and ability) and administrative possibilities (school systems are bureaucracies with a certain pattern of operation) and identification on the part of the administration and teachers, with the new approach to the point where they will internalize certain basic propositions instead of viewing them as ideas imposed from outside.

In introducing change into the school system we encountered andddirected our efforts to meet 3 basic problems.

1. <u>The Socio-Psychological problem</u>: Hesitation or active resistance on the part of supervisors and teachers (accustomed for years to particular patterns of activity) to any innovation that undermined their emotional security and social status. We can state the generalization that during the 7 years of our work - from pre-school to higher education, regardless of locality, there has not been a single instance where resistance in some measure did not appear. In certain cases the immediate reaction was so strong that action was delayed and higher autorities were asked to interfere and enable even limited laboratory-type experiments.

In other cases, the conservative opposition managed to blur or altogether postpone our action.

2. The Pedagogical Problem: To organize new media - textbooks, workbooks, etc. appropriate for use by a teacher who is either prepared to work with the "disadvantaged" or who is so established in the standardized approaches that he cannot be moved to accept a new role.

3. The Administrative Problem: To adapt a system, which was developed for research operation, to procedures used by state and municipal bureaucracies, whose budgetary and administrative arrangements are impersonal, and based on authority-line communications, per capita standards, etc.

The above mentioned schematic division is, of course, an artificial presentation; in each experiment one has to face actual interaction of all these sample problems. The answers are even less easily systematized and generalized; they are results of value orientation and professional status of the researchers, the pattern of operation and role definitions in a certain social system, the amount of readiness available from previous experiences, etc. To illustrate how the situation can possibly, be handled, we will point out 3 different forms of organization developed in our research: (At another occasion, we will describe an experiment designed to promote readiness on the part of teachers to accept change).

1. We built the experiment to be the dual responsibility of the district-supervisory office and the research agency, with the supervisor chairing the board of directors.

2. We organized advisory-supervisory committees for each experiment whose membership consisted of supervisors, administrators, and experts in the specific field. A supervisor chaired each committee and constantly reported the results of the processes to all concerned.

3. We organized three parallel classes of operation:

   a. laboratory classes (for trials by the experimenters)

   b. field operation classes (set up in every district under the guidance of the researchers and open to observation for supervisors and others concerned

   c. objective evaluation classes (set up in certain districts free from all interference by experimenters or administration, and utilizing newly developed approaches in order to evaluate the short and long term results.

At present we are entering the fourth stage of our study. The ground is now prepared for taking five parallel steps. The first step is to develop more penetrating

diagnostic research and experimentation to get a fuller understanding of results from former stages. For example, we are organizing a longitudinal study of growth and development in children from different ethnic and socio-economic groups, (in order to understand how the "gap" in abilities develops) a cross-sectional study of intellectual performance with kibbutz children (to see if the high performance of pre-schoolers in all groups is continued, and if not, how it can be explained), and a study on the relationship of child-rearing parctices of certain groups to child adaptation to intellectual functioning and formal education.

The second step we are ready to take is the preparation of a comprehensive attack, based on the integration of approaches used successfully in different subjects and grades, in previous experiments. Instead of individual experiments in language improvement, or parent participation, or development of attention span, the purpose is to organize a systematic, guided promotion of specific groups through the school system.

The third step is to prepare new matrixes of experimentation to test the effects of varying the percentages of the disadvantaged population in specific programs, of varying the media used at certain ages, and varying the curriculum in general and vocational education.

The fourth step is to organize re-training programs for supervisors, administrators, and teachers to make them intrinsic and active partners to a process that will make education an experimental, changing and developing experience.

In the fifth stage we shall return to the repertoire of the first, and the cycle will be complete. After trying for a certain number of years to observe a changing society and to influence the course of its adjustment, there is a need for review and re-orientation. The regularly accumulated data-demographic, economic, psychological, etc., point to changes in cultural patterns and social behavior in different areas. We, then, have to repeat the type of studies mentioned at the first stage in order to discover what long term influences may be developing in communities that practice family planning, change social and occupational roles and that accept the propositions and influences of a welfare state, etc. From this we will be better able to analyze the implications for education of the future. If this re-examination does not take place, the danger--already manifest in some places--grows exceeding great of using yesterday's perceptions and tools to guide a changing society.

III. SUMMARY OF RESULTS AND PRELIMINARY PROPOSITIONS

The topic chosen for presentation is very broad, the problems presented for analysis are innumerable in their configurations, and at the same time our present knowledge is only partial and at the experimental stage. Therefore, we can only present at this forum an outline of initial results and general conclusions.

1. THE I.Q. OF CULTURALLY DISADVANTAGED CHILDREN CAN BE RAISED AND MAINTAINED AT THAT LEVEL

The series of pedagogical experiments point, at this stage, to the possibility of raising the I.Q. of culturally disadvantaged children by a mean of 20 points at pre-school, 8 pts. at the second grade, and 6 pts. at the upper elementary grades. As can be seen from the following table, the range of improvement is greater for children whose initial I.Q. score was lower. Therefore, in the group that initially tested 70-79, an improvement of nearly 30 pts. was achieved at pre-school, 16 points at second grade, and 13 points at early adolescence. Less change is evident with the children who initially scored higher.

TABLE 1 : I.Q. CHANGES REGISTERED IN EXPERIMENTS OF INTELLECTUAL ADVANCEMENT PROGRAMS AT VARIED AGES.[1]

I.Q. distribution at initial testing	Type of experiment		
	Planned Pre-school program ages 4-5 (N=); 4-6 (N=); 5-6 (N=)	Language Improvement program in 2nd grade- age 7-8 (N=)	Afternoon and Summer Enrichment age 11+ to 13+ (N= 269)
	Test used: term as 1937, Form L	Test used: Wisc, Verbal	Test used: Wisc, Verbal
	Range of change in 3 experiments		
70-79	29[2]	16.3	13.3[3]
80-89	18.9-22.4	9.8	
90-99	13.1-17.3	5.2	6.5
100-109	10.8-12.7	2.6	4.4
110-119	4.8-10.9	0.7	0.8
Mean change in age groups 5-6	90.6-109.7	Age 7-8,	Age 12 - 13+;[4]
mean change in Groups 4-5 and 4-6	97.6-110.1	92.3-99.6	Jerusalem 99.7-106.2
			Tel-Aviv 101.8-106.8

1 This data is taken from experiments conducted by the authors at the Szold Institute during 1963-64.

2 The 29 point increase was achieved with the group of 5-6 year olds. No children of this initial I.Q. range participated in the other 2 groups.

3 No separation into 2 groups was registered here.

4 As can be seen from the mean I.Q., the group initially had a higher starting point. It is the upper 30% from 16 culturally disadvantaged schools.

There are 3 possible explanations for this improvement differential: a) those who initially scored higher were the least deprived, environmentally, and were, therefore, scoring closer to their actual potential. b) the programs which have been used are more attuned to the needs of the lower groups, implying that test results of the privileged can be influenced only through more powerful media of enrichment, and c) in repeated testing there is a convergence toward the mean. Thus, part of the differentially scaled result is a statistical phenomenon.

A follow-up of the five year old group after their entrance to elementary school, showed that the gain in I.Q. was maintained at the end of the 1st grade. But, as can be seen from the following table, the "European" derived control group made an additional leap in the first year in school. This relative "gap" had to receive additional consideration; we, therefore, continued the promotion program into the 2nd grade for half of the experimental group to see whether or not they would continue to maintain their pre-school growth toward closing the "gap." The results of this program will be available, shortly. (This sentence will be replaced before printing, when the additional data is received.)

TABLE 2: A COMPARISON OF I.Q. CHANGES BETWEEN CULTURALLY DISSIMILAR EXPERIMENTAL AND CONTROL GROUPS:[1]

Name of Test	Term an, 1937			Wisc-Verbal		
Name of group by father origin	Age 5	Age 6	difference	Age 6	Age 7	difference diff.
Experimental "oriental" (L)	90.6	109.7	19.1	105.5	106.8	1.3
1. Control "Oriental" (L)						
2. Control "European" (L)	102.4	110.7	7.9	105.8	116.3	10.5
3. Control "Oriental" (H)	112.2				115.3	
4. Control "European" (H)	130.6				126.4	

[1] Four types of control groups were available for participation in these experiments: 1) Lower "Orientals" equal in I.Q. and background to the experimental group that received pre-school educational promotion through the normal approach of kindergarten. 2) Lower "Europeans" whose fathers had an elementary education.
3) Higher (socially and economically) "Europeans."
4) Higher (socially and economically) "Orientals."

The a/m results of pre-schoolers were achieved under a one year program in normal-sized classrooms with regular teachers. In order to determine what results can be potentially expected under optimal environmental conditions, a pilot study was conducted in kibbutz nurseries, where children are reared and educated, from birth, in much smaller groups.[1]

Testing Oriental and European derived children of ages 4-6 with comparable educational backgrounds revealed 2 patterns of improvement: 1) at this age there is no significant difference of performance on an ethnic basis, and 2) that both groups span a high range in I.Q. than the normal curve for this test.

TABLE 3 : I.Q. DISTRIBUTION OF PRE-SCHOOL KIBBUTZ CHILDREN, AGES 4-5, PLOTTED ACCORDING TO THE FATHER'S COUNTRY OF ORIGIN.[2]

I.Q. range	Number of children in group		
	M.E. father	%	European father
90-99	1	2.5	--
100-109	6	15.5	5
110-119	15	38.0	16
120-129	12	31.0	13
130-139	5	13.0	5
TOTAL	39	100	39

1 For a descriptive report on kibbutz child care see, M. Smilansky, S. Weintraub, and Y. Hanagci -- Child Welfare in Israel, Szold Institute, 1960, Jerusalem, (in English).

2 This is a random selection of children from 21 settlements whose parents (both, mother and father) came to Israel from a Middle-Eastern state, eight to fifteen years before the date of testing. All of these children were born and reared in the kibbutz and each child was paired with a child in the same "care-group" whose parents arrived at a similar time from Eastern Europe, and had the same level of education.

This study will be continued next year to examine the differential I.Q. results of children from the same families, at different ages, whose entire upbringing took place in kibbutz, and children from the same families who spent their early years in a different environment and were brought to the kibbutz at a later age. This will answer the question to what extent different environments influence children at different ages.

By integrating the above cited evidence, but, at the same time, acknowledging that it is the result of first trials with relatively primitive media of instruction, we propose that: a) the I.Q. of culturally disadvantaged children can be raised and b) that pre-school programs assure more change that later endeavors. We further suggest that a longitudinal and more sophisticated approach will demonstrate that abilities are more susceptible to planned modification than has been hitherto assumed.

2. READING SKILL AND LANGUAGE STANDARDS CAN BE RAISED

The experiments in teaching reading to first grade pupils from culturally disadvantaged backgrounds demonstrated that while 70% of the experimental population scored an initial I.Q. less than 90, 52% reached the normative mark "good" in reading level. This equaled the percentage of pupils from the general population who reached that level, but far surpassed the control group of whom only 33% achieved similar results. What is more important is that only 14% of the experimental group remained "non-readers" as against 9% from the general school system, and 28% in the matched control group.

TABLE 4: READING ACHIEVEMENTS OF EXPERIMENTAL AND CONTROL GROUPS IN THE FIRST GRADE, PLOTTED BY PERCENTAGES.[1]

Population	N	Level of Reading Aloud			
		A-Good	B-Average	C-Poor	Total
Achievement for general school system		50	41	9	100
Experimental C.D. group described below	326	52	34	14	100
Control C.D. group matched for cultured background and I.Q.	258	33	39	28	100

[1] On the pre-experiment testing, differences in I.Q. distribution between the "general population" (according to standardization of test) and the experimental group was as follows:

% of children in different I.Q. group	Less than 79	80-89	90-99	100-109	110-199	120+	Total %
general population	9	16	25	25	16	9	100
experimental population	27	43	23	5	---2---		100

The experiment in language development in the second grade showed again, that a one year program, properly organized and guided can produce significant changes in reading comprehension, knowledge of information included in prescribed topics and vocabulary, between initially matched groups.

TABLE 5: CHANGES OF DIFFERENT TESTS IN A 2nd GRADE EXPERIMENT ON LANGUAGE INSTRUCTION.

Test	% of Correct Answers		
	Experimental C.D. Group N=500	Control C.D. Group N=496	Difference
Reading Comprehension	56.9%	33.3%	23.6%
Information	75.6%	56.1%	19.9%
Vocabulary	64.5%	50.0%	11.1%

3. RATES OF SUCCESS IN THE NATIONAL SCHOLASTIC EXAMINATIONS CAN BE IMPROVED.

In Israel, as in most Western European countries, national scholastic examination are held, at different developmental stages, for guidance and selection of students for secondary and higher education. A relatively low level of participation and success exists for the culturally disadvantaged youth. On the 8th grade survey, about 10% only of the "Oriental" group

passed the expected norm as against 40% of the "European" group. In secondary academic schools only about 15% of the 12th grade population came from the "Oriental" group, which, interms of the total Jewish population, comprises nearly half.

The experiments of enrichment and preparation for secondary education showed that among the top 30% of a culturally disadvantaged school, it was possible to significantly raise the proportion of students reached the minimal norm. Of the experimental group only 13.4% remained below the 70th percentile while 37.8% surpassed the 80th percentile; in the matched control group 36.5% remained below the norm while only 27% excelled the 80th percentile.

TABLE 6: Distribution of Experimental and Control Groups on the National Scholastic Survey Test, at age 13+

Score in percentile	up to 69	70-79	80+	
Experimental group	1.34	48.8	37.8	100
Control group	36.5	36.5	27.0	100

This change in ability and achievement was noticable on the battery of tests given by the vocational guidance bureau, as well. The following illustration shows that while initially matched, the experimental groups made significant improvement in verbal intelligence, non-verbal intelligence, and arithmetic II problems, but showed no particular change in space perception.

TABLE 7: Achievement of Experimental and Control Groups on the Tel-Aviv Psychological Service Tests

Group	Verbal Intelligence		Progressive Matrix		Space Perception		Arithmetic I		Arithmetic II	
	$\bar{x}$	σ	$\bar{x}$	σ	$\bar{x}$	σ	$\bar{x}$	σ	$\bar{x}$	σ
Experimental	52.4	19.3	46.2	22.0	45.0	26.3	49.2	25.8	61.4	23.1
Control	41.0	20.8	35.4	22.3	47.8	26.4	44.3	23.3	44.4	23.3
t	2.8		2.7		0.6		0.94		3.5	
Significance	α =	0.1+	α=	0.1+	---		---		α=	0.1+

A very positive change has been illustrated by another experiment in a boarding school with college bound youth from culturally "disadvantaged" backgrounds. In the first graduating class of the experimental group, 84.6% of the total number who entered the boarding program reached the 12th grade and of them, 87.3% passed all matriculation exams. In a control group of similar ability and socio-cultural background only 70% registered in college bound academic programs, only 61.9% of those registered reached the 12th grade, and only 63.6% were successful in matriculating.

TABLE 8: DROP-OUT RATE AND ACHIEVEMENT ON MATRICULATION EXAMS OF EXPERIMENTAL AND VARIED CONTROL GROUPS, IN ACADEMIC HIGH SCHOOL.

Group	Last grade attended 9th	10th	11th	12th	Total	% of successful on all matr. exams
Experimental boarding	4.1	6.2	4.1	84.6	100	87.3
Control group with similar I.Q. and socio cultural back-ground	2.4	16.6	19.1	61.9	100	63.6
All Europeans entering academic H. with similar minimum ability (percentile 80+)	3.8	5.6	9.4	81.2	100	73.4
All M.E. entering academic H. with similar minimum ability (percentile 80+)	10.2	13.7	15.8	60.3	100	56.5

From this table we can see that the specially adapted promotion program gave relatively comparable groups very different prospects for success.

Another way to demonstrate this new potentiality is through a comparison of the actual marks achieved on the national matriculation examination by the experimental boarding group and their primarily middle class, "European" classmates. From the following rable it can be seen that although they came from low standard elementary schools and culturally disadvantaged home environments, four years of promotion in the boarding program brought them to similar or better mean achievement in all subjects, except foreign language.

TABLE 9: AVERAGE MATRICULATION SCORES, IN DIFFERENT SUBJECTS, OF THE EXPERIMENTAL BOARDING GROUP AND ITS CLASSMATES IN FOUR ACADEMIC HIGH SCHOOLS IN JERUSALEM (1964)

Subject:	Boarding pupil	Others in same classroom
Language - comprehension	6.6	6.5
" - literature	7.1	7.0
Bible	7.4	7.3
Foreign Language-English	6.3	6.9
Mathematics	7.1	6.7
Chemistry	7.3	6.5
Biology	7.2	7.0
Social studies	7.3	7.0

As our report on this project explained (see) these results do not mean to claim that all differences among the culturally disadvantaged groups and their contemporaries were eliminated through participation in the program. They intend, instead, to demonstrate that through application of the yardstick used by school systems to measure potentiality for study and eligibility to higher education it is possible to close the "gap" even at a relatively late hour.

4. READINESS AND SUCCESS IN SCHOOL DEPEND UPON THE DEVELOPMENT OF STRATEGY AND DIDACTICS SPECIFICALLY ADAPTED FOR CULTURALLY DISADVANTAGED CHILDREN:

The above mentioned results, and evidence from other experiments, are indications that efforts at developing strategy and didactics may be fruitful. The elements shared by the different experiments which lead to these achievements are: producing a social climate for promotion of intellectual pursuits; development of a meaningful curriculum; developing teaching methods that actively encourage intellectual functioning; preparation of learning devices geared to a systematic ang gradual filling-in of the learning gapsl arresting trends of alienation that result from inappropriate data; and a strengthening of the deficiencies that deprivation has produced. The various approaches we have pursued may be organized in the following didactic propositions:

a) Promotional activity should precede as well as accompany each stage maturation.

"Readiness" or maturation is a function of a particular stage of development. It is commonly understood to be influenced by genetic potentialities and environmental factors, and the usual proposition is that a child should not be expected to respond in given ways until he has reached a particular stage of readiness. Our work with "disadvantaged" children suggests, however,

that their time of readiness can be advanced and the quality of their functioning can be enriched by working with them in the periods preceding overt evidence of readiness. In fact, there are indications that if the appropriate time for developing certain abilities passes without being influenced by environmental agents (the home or school), certain qualities of performance may not develop .

b) We should be active partners with the children.

As demonstrated in the experiment on the development of socio-dramatic play (see) or the series of experiments on optimum learning conditions (see) we have taken responsibility for the active fostering of particular abilities. In so doing we have diagnosed the child's existing level of performance and have built from that base new concepts vital for his continued learning. Without entering into a discussion of whether or not "setting the scene and waiting backstage" is appropriate for the intellectual advancement of "advantaged" children, we unequivocally state that withholding active guidance from the "disadvantaged" is tantamount to a retreat from educational responsibility.

c) The children need concrete and immediate objectives.

At each developmental state of the program, in any specific area of study, the child must be able to recognize what his goal is and must feel that its

acquisition is impending. In this fashion the child can gain satisfaction and reward at each step of his progression.

d) New concepts should be systematically built on the foundation of existing ones.

It is imperative to know what the child's existing concepts are and to build from them new concepts that are important for his continued learning. Rich experiences can be utterly meaningless for the intellectual growth of a child who has not been taught to relate and inteprete them in a conceptual configuration. Accordingly, our didactic materials have been designed to move <u>from</u> the level of expected achievement at any given stage <u>toward</u> the point of departure for a certain skill. These materials are also differentiated according to the readiness level of individuals and groups. This attempt at selective adaptation makes the employment of different perceptive senses possible, and, thus, maximizes the chance for stimulating and developing the child's full potentialities.

e) Abstraction is a basic element in any formulation fo intelligent functioning.

Our didactics aim at building "learning sets" that enable the child to flexibly transfer from one to the other. Each "set" is a form of intellectual abstraction and potential generalization. Combined with other "sets" from other experiences, it provides for still

further intellectual abstraction and generalization.

f) The teacher should be instructed and prepared for making continuous diagnostic evaluation of the students' progress.

In order to provide the child with profitable direction and experience, the teacher must be fully aware of the scholastic achievement and the developments in the learning process of each child. When such evaluation is not possible, teaching is wasted and may even be harmful; the child may be expected to do what he cannot.

Tests are the means of checking the validity of a teacher's guidance and a student's progress. Their primary function is to evaluate what we, the educators - effect in our efforts to develop children's abilities and to indicate better ways in which we might work.

5. PARENTAL SUPPORT CAN BE SECURED FOR A MEANINGFUL PROPOSITION

In our preparation of programs for the cuturally disadvantaged child we assumed that the home and the school were two social systems very different in structure, expectations, requirements, discipline of children, rewards, etc. We proposed that the child can successfully function in these different systems provided that two prerequisites are met a) the child has a clear picture of the meaning of the school, and

b) the home gives the school its support.

In order for the child to have a clear picture of the meaning of the school, the school must: a) help the child to know and understand its expectations, b) teach him how to behave and act according to these expectations, c) help him to achieve success in his attempts at adjustment, and d) give him meaningful reward for his success.

In order for the home to give its support to the school the school must a) accept the home as an honorable institution, b) understand and support its particular functions, c) must not try to change or undermine the home, and d) must seek a union with the home mainly at the point of common concern, ie., the successful progress of the child.

Our experience (in experiments with different ethnic, ecological, and age groups pre-school to adolescence) teaches us that under these conditions "disadvantaged" parents will give their support to the school, provided that they clearly see the relationship of schooling to the eventual social and occupational mobility of their child. They need proof that the school is committed to the success of their child, and must concretely understand how the school works to achieve it and how it will fortity him in its wake.

It can be seen, then, that we do not view "parent education" as re-education, or group psychotherapy, or social work, of the culturally disadvantaged parents. We focus, instead, on the educational progress of the child

and think of the home as capable of giving the school valuable support.

In speaking of home support, we recognize different possibilities for cooperation with parents at different stages. In the pre-school program, for example, we have experimented with teaching parents to instruct and acclimate their children to certain school requirements. (see) In the adolescent programs, on the other hand, where academic demands increase, home schedules are affected, and parental attitudes can make a critical difference, we enlisted the parents' understanding of our program and support to their child in his endeavors to adjust. (see)

6. THE NEED TO INTEGRATE THE WORK IN SCHOOL WITH A COMMUNITY DEVELOPMENT APPROACH

As has already been demonstrated, the school may successfully promote scholastic achievement at certain developmental stages. But it must be realized that with the maturation of the individual, his motivation and "readiness" to make the necessary efforts is increasingly dependent upon the social climate of the school zoning, employment opportunities, vocational training, and other socially oriented measures are influencing socio-economic conditions in the home as well as the composition of the schools. Although our experiements have shown that we can effect change in specific areas of

performance at certain ages, and thus, lay better foundations for intellectual development, the possibilities for further improvemen' remain limited, and unless we can so design school and community activity as to be mutually supportive, there is an actual, as well as a psychological, danger of reaching a standstill in the process of "bridging the gap".

From an absolute standpoint, there may be recognizable improvements in the skills, and even status, of the culturally disadvantaged. At the same time, however, actual or psychological inadequacy may be accentuated, both because the general standards of demands have risen through the additional improvement of the "advantaged", and because the level of aspiration of the "disadvantaged" has been raised as well.

A long-term analysis of cultual and economic trends in Israel, as well as in other countries, leads to the generalization that the "gap" is deeper than proponents of the "welfare state era" envision, and it may yet expand because of the law "to him who has, even more shall be given". Only a national policy geared toward a significant change through preferential treatment of the "disadvantaged" and a comprehensive, large-scale attack on the basic problems influencing their opportunities and functioning, can provide a real prospect for intellectual and social progress.